

Application No: 10/810,019

Docket No.: Q198-US1

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IN THE CLAIMS**RECEIVED
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Please amend the claims as follows:

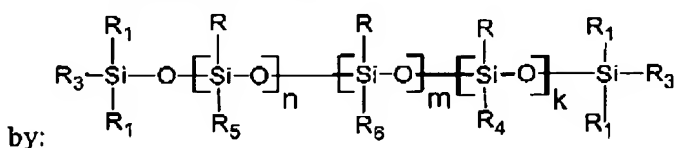
1. (currently amended) An electrochemical device, comprising:
an electrolyte including a polysiloxane having a backbone that includes terminal silicons and non-terminal silicons,
~~the backbone including~~ one or more terminal silicons linked to at least one side chain that includes a carbonate moiety,
a portion of the silicons being linked to a side chain that includes a poly(alkylene oxide) moiety.
2. (canceled)
3. (previously presented) The device of claim 1, wherein the carbonate moiety is a cyclic carbonate moiety.
4. (currently amended) The device of claim 1, wherein at least one of the terminal silicons is linked to the side chain that includes the carbonate moiety a second one ~~and another~~ of the terminal silicons is one of the silicons that is linked to the ~~at least one~~ side chain that includes the ~~a~~ poly(alkylene oxide) moiety.
5. (currently amended) The device of claim 4, wherein an organic spacer is positioned between the poly(alkylene oxide) moiety and the ~~backbone~~ second one of the terminal silicons.
- 6-8. (canceled)
9. (previously presented) The device of claim 1, wherein each terminal silicon is linked to at least one side chain that includes the carbonate moiety.

10. (previously presented) The device of claim 9, wherein each non-terminal silicon is linked to at least one side chain that includes a poly(alkylene oxide) moiety.

11. (canceled)

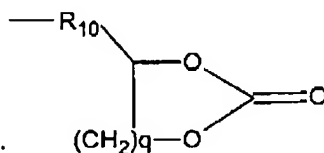
12. (previously presented) The device of claim 1, wherein the at least one side chain includes an oxygen linked to a silicon on the backbone.

13. (previously presented) The device of claim 1, wherein the polysiloxane is represented



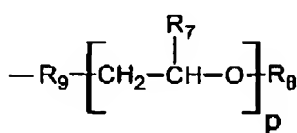
where R is alkyl or aryl; R₁ is alkyl or aryl;

at least one of the R_3 is represented by:

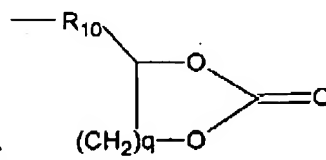


and the other

R_3 is represented by:

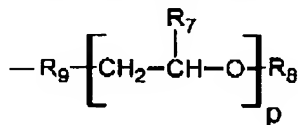


or



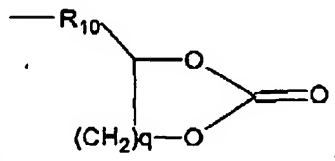
R₄ is a cross link that links the polysiloxane backbone to another polysiloxane backbone;

R₅ is represented by:



;

R₆ is represented by:



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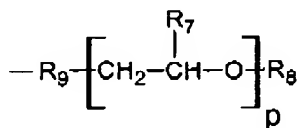
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R_7 is hydrogen; alkyl or aryl; R_8 is alkyl or aryl; R_9 is oxygen or an organic spacer; R_{10} is an oxygen or an organic spacer; k is greater than or equal to 0; p is 3 to 20; q is 1 to 2; m is greater than or equal to 0 and n is 2 to 25.

14. (previously presented) The device of claim 13, wherein a ratio of $n:m$ is in a range of 10:1 to 100:1.

15. (canceled)

16. (previously presented) The device of claim 13, wherein at least one R_3 is represented



by:

17. (previously presented) The device of claim 16, wherein R_9 is an organic spacer.

18. (canceled)

19. (previously presented) The device of claim 13, wherein at least one R_3 has a different structure from another R_3 .

20. (previously presented) The device of claim 13, wherein each R_3 has a different structure from each R_5 and from each R_6 .

21. (previously presented) The device of claim 1, wherein the average molecular weight for the polysiloxane is less than or equal to 3000 g/mole.

22. (previously presented) The device of claim 1, wherein the electrolyte includes lithium ions, and wherein a $[O]/[Li]$ ratio is 5 to 50, $[O]$ being the molar concentration of the active oxygens in the electrolyte and $[Li]$ being the molar concentration of the lithium ions in the electrolyte.

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23. (previously presented) The device of claim 1, wherein the electrolyte is a liquid.

24. (previously presented) The device of claim 1, wherein the electrolyte is a solid.

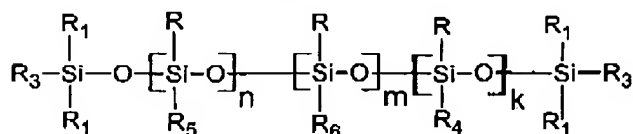
25. (canceled)

26. (previously presented) The device of claim 1, wherein the polysiloxane is a member of an interpenetrating network.

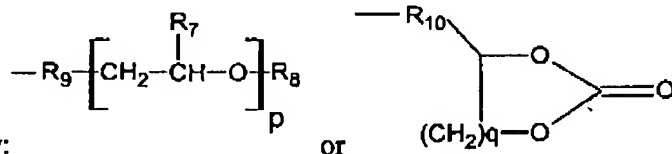
27. (previously presented) The device of claim 1, wherein the electrolyte has a conductivity better than 1.0×10^{-4} S/cm at 25 °C.

28-54. (canceled)

55. (previously presented) An electrochemical device, comprising:
an electrolyte including a polysiloxane represented by:

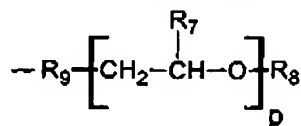


where R is alkyl or aryl; R₁ is alkyl or aryl;



R₃ is represented by:

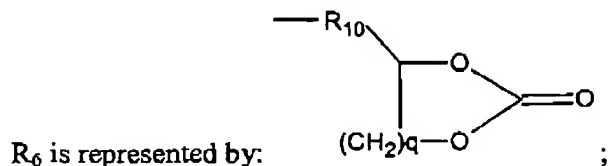
R₄ is a cross link that links the polysiloxane backbone to another polysiloxane backbone;



R₅ is represented by:

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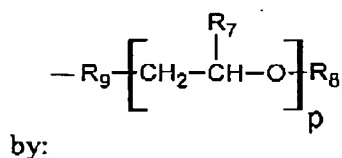
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R_7 is hydrogen; alkyl or aryl; R_8 is alkyl or aryl; R_9 is oxygen or an organic spacer; R_{10} is an oxygen or an organic spacer; k is greater than or equal to 0; p is 3 to 20; q is 1 to 2; m is greater than or equal to 0 and n is 2 to 25.

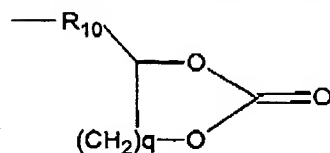
56. (previously presented) The device of claim 55, wherein a ratio of $n:m$ is in a range of 10:1 to 100:1.

57. (previously presented) The device of claim 55, wherein at least one R_3 is represented



58. (previously presented) The device of claim 57, wherein R_9 is an organic spacer.

59. (previously presented) The device of claim 55, wherein at least one R_3 is represented by:



60. (previously presented) The device of claim 55, wherein at least one R_3 has a different structure from another R_3 .

61. (previously presented) The device of claim 55, wherein each R_3 has a different structure from each R_3 and from each R_6 .

62. (new) The device of claim 1, wherein the portion of the silicons being linked to the side chain that includes the poly(alkylene oxide) moiety excludes the one or more terminal

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silicons that are linked to the at least one side chain that includes the carbonate moiety.